



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/543,150	07/25/2005	Susumu Saisho	274417US0PCT	2650
22850	7590	12/21/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER ZIMMERMAN, JOHN J				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
12/21/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com

oblonpat@oblon.com

jgardner@oblon.com

Office Action Summary

Application No.

10/543,150

Applicant(s)

SAISHO ET AL.

Examiner

John J. Zimmerman

Art Unit

1794

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on November 12 2009 and December 8, 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2, 4-5 and 12-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 4-5 and 12-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

FIFTH OFFICE ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 8, 2009 has been entered.

Amendments

2. This Fifth Office Action considers the correspondence titled "AMENDMENT AFTER FINAL" received November 12, 2009. Claims 2, 4-5 and 12-13 are pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 4-5 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Syslak (WO 02/090031).

5. Syslak discloses that an aluminum multilayer brazing sheet can be made having an inner aluminum alloy cladding layer comprising 0.7-1.5 wt.% Mn, 0-1.2 wt.% Si, 0-0.6 wt.% Fe, 1.0-2.0 wt.% Zn, 0.5 wt.% Mg and 0-0.5 wt.% Ti (e.g. see page 5, lines 22-26). In addition, Syslak discloses that the core material is an aluminum alloy comprising 0.7-1.5 wt.% Mn, 0-0.6 wt.% Si, 0-0.6 wt.% Fe, 0-0.6 wt.% Zn, 0-1.0 wt.% Cu, 0-0.4 wt.% Mg and 0-0.5 wt.% Ti (e.g. see page 5, lines 6-13). The brazing alloy layer can comprise 4-14 wt.% Si, 0-0.8 wt.% Fe, 0-0.5 wt.% Cu, 0-0.5 wt.% Mg, 0-0.5 wt.% Mn, 0.1-2 wt.% Zn and 0-0.5 wt.% Ti (e.g. see page 5, lines 1-5) is clad on one or both sides of multilayer sheet (e.g. see page 3, lines 5-15). Higher Zn content in the cladding layer renders the cladding layer less noble than the core layer (e.g. see page 6, lines 9-19). The braze layer can be arranged on one side of the core and the inner cladding layer can be arranged on the other side of the core (e.g. see claim 4). Although the alloying constituent ranges for the layers of Syslak may not have the same endpoints as the ranges described in the rejected claims, the ranges do overlap. Therefore, the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. See MPEP 2144.05. While it is noted that the compositions in the claims may use the term "consisting essentially of", this term allows for additional alloying constituents which do not affect the basic and novel characteristics of the invention, *Ex parte*

Davis, et al., 80 USPQ 448 (PTO Bd. App. 1948); *In re Janakirama-Rao*, 137 USPQ 893 (CCPA 1963). There is no factual evidence of record that the additional constituents of Syslak affect the basic and novel characteristics of the invention and therefore they are not prohibited by the "consisting essentially" claim language. See MPEP 2111.03. Syslak may differ from the claims in that the magnesium content of Syslak's cladding is 0.5 wt.% Mg and the claimed magnesium content starts at 0.52 wt.% Mg. However, one of ordinary skill in the art would not expect a two hundredth of a percent difference in magnesium content to result in a patentable distinction over the alloy of the Syslak. In addition, there is no factual evidence of record that a difference of 0.02 wt.% Mg results in a patentable distinction. A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. See *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05.

Response to Arguments

6. Applicant's amendments and arguments filed November 12, 2009 have been fully considered and they have been successful in overcoming several objections and rejections set forth in the Fourth Office Action of August 14, 2009. Applicant's amendments requiring that the core material have a maximum Mg content of 0.3 mass % has overcome the prior rejection under 35 U.S.C. 103(a) as obvious over Doyle (U.S. Patent 3,310,389) in view of Young (U.S. Patent 2,900,713) or Giovannucci (U.S. Patent 3,386,221) since there is no motivation to modify these references to meet the compositional limitation of the pending claims. The amendments and

arguments, however, are not persuasive with regards to the remaining rejection of the pending claims under 35 U.S.C. 103(a) as being unpatentable over Syslak (WO 02/090031).

7. Regarding the rejection of the claims under 35 U.S.C. 103(a) as being unpatentable over Syslak (WO 02/090031), applicant argues that nowhere does Syslak disclose or suggest a brazing sheet wherein a potential of the cladding is lower than a potential of the core and a sacrificial anode effect is obtained as described in claim 2 (e.g. see page 7 of applicant's response). The examiner notes, however, that the potentials of the core and the cladding would be inherent to the compositions of the core and the cladding. Since Syslak's core and cladding compositions are patentably indistinct from those of applicant, the properties would be expected to be the same. Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977). In any event, however, Syslak does clearly recognize (e.g. see page 6, lines 9-19) that the higher Zn content in the cladding layer (1.0-2.0 wt.% Zn) renders the cladding layer less noble than the core layer (0-0.6 wt.%). Therefore, one of ordinary skill in the art would understand that the potential of the cladding layer of Syslak's brazing sheet would be lower than the potential of the core and a sacrificial anode effect would result. Applicant also argues Syslak

differs from the claims in that the magnesium content of Syslak's cladding is 0.5 wt.% Mg and the claimed magnesium content starts at 0.52 wt.% Mg (e.g. see pages 7-8 of applicant's response). However, one of ordinary skill in the art would not expect a two hundredth of a percent difference in magnesium content to result in a patentable distinction over the alloy of the Syslak. In addition, there is no factual evidence of record that a difference of 0.02 wt.% Mg results in a patentable distinction. A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. See *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05. Applicant argues that the Declaration under 37 C.F.R. 1.132 of Toshiki Ueda (received May 27, 2009) does establish that a 0.02% difference results in a difference in post brazing strength as shown by Examples 1, 2 and 10 (e.g. see page 12 of applicant's previous response). The examiner notes that the too many alloying constituents (e.g. Si, Mn, Zn content) were simultaneously varied in the results of Table 1 to directly attribute differences in post brazing strength to the small change Mg content alone. The examiner's observation is confirmed by the fact that many examples in Table 1 (e.g. 4, 8, 9, etc. . .) contain considerably more Mg than Example 1, but do not result in a higher post brazing strength. Therefore, applicant has not established that a 0.02% difference in Mg is a patentable distinction over Syslak. As noted earlier, it is not necessary that the reference have the same purpose in mind as the purpose envisioned by applicant.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John J. Zimmerman
Primary Examiner
Art Unit 1794

/John J. Zimmerman/
Primary Examiner, Art Unit 1794

jjz
December 15, 2009